

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: P300521

Luminaire Tested: **ML4D09_27D2WE - TIR50WFL55 - TL43R2G0RBBB - TL44S2G0RBBB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P300521
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1902-156-35)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML4D09_27D2WE - TIR50WFL55 - TL43R2G0RBBB - TL44S2G0RBBB
Description: ML4 2700K, 900LM DIM-TO-WARM, 55 DEG WFL OPTIC, WITH ROUND/SQUARE
DIFFUSED CLEAR LENS, OIL RUBBED BRONZE FLANGE, BLACK LENS FRAME
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 501.1 lumens
Efficiency: N/A
Efficacy: 44.7 lumens/watt
Spacing Criteria (0/90/45): 0.72 / 0.72 / 0.73
Luminous Opening: Circular (Dia: 0.19' x H: 0')
CIE Type: Direct

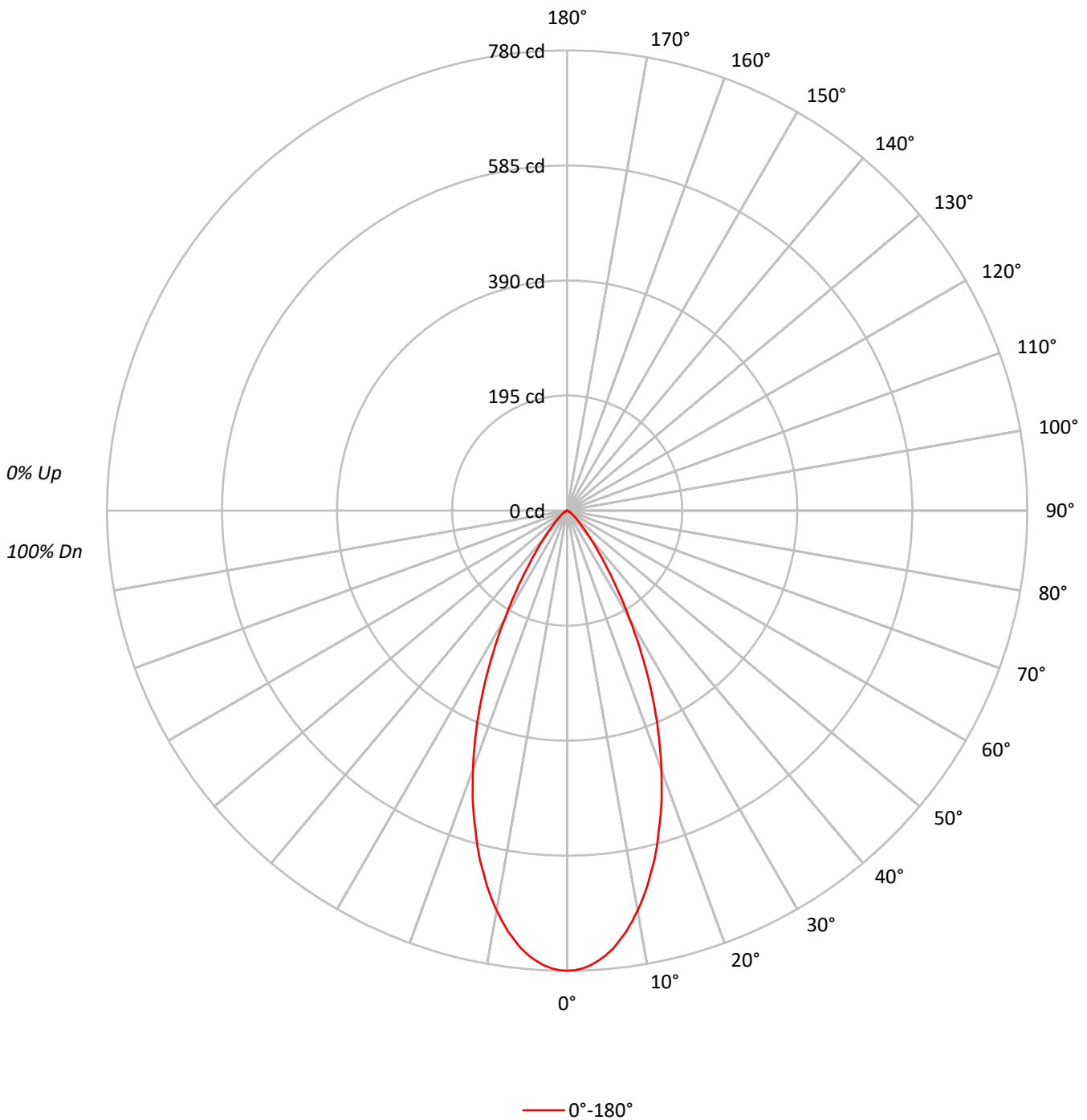
Input Watts (W): 11.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	111	109	106	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	108	104	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88
3	103	97	92	88	101	96	91	88	93	89	86	91	88	85	88	86	84	82
4	98	91	86	82	97	90	85	81	88	84	80	86	82	79	84	81	78	77
5	94	86	80	76	92	85	80	76	83	78	75	81	77	74	80	76	74	72
6	89	81	75	71	88	80	75	71	79	74	70	77	73	70	76	72	69	68
7	85	76	71	67	84	76	70	67	75	70	66	73	69	66	72	68	66	64
8	82	72	67	63	80	72	67	63	71	66	63	70	65	62	69	65	62	61
9	78	69	63	59	77	68	63	59	67	63	59	67	62	59	66	62	59	58
10	75	66	60	56	74	65	60	56	64	59	56	64	59	56	63	59	56	55

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	304186
5°	295996
10°	272540
15°	237590
20°	193735
25°	145084
30°	94799
35°	55585
40°	30483
45°	17587
50°	10310
55°	6797
60°	4678
65°	3690
70°	2280
75°	1506
80°	0
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.0	14.0
10°-20°	162.3	32.4
20°-30°	152.8	30.5
30°-40°	75.8	15.1
40°-50°	25.9	5.2
50°-60°	9.2	1.8
60°-70°	3.7	0.7
70°-80°	1.3	0.3
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	385.1	76.9
0°-40°	460.9	92.0
0°-60°	496.0	99.0
0°-90°	501.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	501.1	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	780	
5°	756	70
15°	589	162
25°	337	153
35°	117	76
45°	32	26
55°	10	9
65°	4	4
75°	1	1
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	780.3
1°	779.3
2°	776.3
3°	771.4
4°	764.4
5°	756.4
6°	746.4
7°	733.4
8°	720.5
9°	704.5
10°	688.5
11°	670.6
12°	651.6
13°	630.7
14°	610.7
15°	588.7
16°	563.8
17°	540.8
18°	517.9
19°	492.0
20°	467.0
21°	442.1
22°	415.1
23°	390.2
24°	363.2
25°	337.3
27.5°	272.4
30°	210.6
32.5°	158.7
35°	116.8
37.5°	83.8
40°	59.9
42.5°	42.9
45°	31.9
47.5°	23.0
50°	17.0
52.5°	13.0
55°	10.0
57.5°	7.0
60°	6.0
62.5°	4.0
65°	4.0
67.5°	3.0
70°	2.0
72.5°	2.0



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CANDELA DISTRIBUTION (continued):

	0°
75°	1.0
77.5°	1.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)